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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,111	09/02/2003	Sheng-Yuan Cheng	33038-405900	6877

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EXAMINER	
MEW, KEVIN D	
ART UNIT	**PAPER NUMBER**
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/655,111	CHENG, SHENG-YUAN	
	Examiner	Art Unit	
	Kevin Mew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7,13 and 14* is/are rejected.

7)☒ Claim(s) *4-6,8-12,15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 7, 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Myles et al. (USP 7,151,945).

Regarding claim 1, Myles discloses an apparatus for generating a control signal of a target beacon transmission time, comprising:

a timing synchronization timer (timing synchronization function TSF, col. 12, lines 1-10; note that TSF is equal to the sum of $TSF_{local} + T_{offset}$);

a comparator (MAC administrator, element 302, Fig. 6) for comparing the time of the timing synchronization timer (comparing TSF) with a predetermined target beacon transmission time (with TBTT, col. 12, lines 1-10), and generating a control signal of the target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6) if the comparison is equivalent (TBTT is when TSF some multiple of a beacon period, col. 12, lines 1-10); and

an adder (TxHw, element 316, Fig. 6) for setting the next target beacon transmission time (setting the $TSF_{beacon\ out}$, Fig. 5) by adding a beacon interval (adding $T_{offset\ out}$) to the predetermined target beacon transmission time (to the TSF/TBTT; note that TSF is the sum of $TSF_{local} + T_{offset}$, col. 12, lines 13-25 and Fig. 6) when the control signal of the target beacon

transmission time is generated (when the beacon is generated, Fig. 6).

Regarding claim 2, Myles discloses the apparatus for generating a control signal of a target beacon transmission time of Claim 1, wherein the adder comprises an arithmetic enablement switch, which performs an addition operation when the control signal of the target beacon transmission time is generated (the TxHw 316 performs an addition operation of $TSF_{offset\ out}$ to the TSF when the beacon is generated, col. 12, lines 13-25 and Fig. 6).

Regarding claim 3, Myles discloses the apparatus for generating a control signal of a target beacon transmission time of Claim 1, wherein the adder comprises:

a first input port for receiving the predetermined target beacon transmission timer (a first port for receiving T_{offset});

an output port electrically connected to the comparator (an output port of TxHw 316, Fig. 6); and

a second input port electrically connected to the output port (a second input port from Register 322 to be electrically connected to the output port of TxHw 316, Fig. 6).

Regarding claim 7, Myles discloses an apparatus for generating a control signal of a target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6), electrically connected to a host setting a predetermined target beacon transmission time, the apparatus comprising:

a timing synchronization timer (timing synchronization function TSF, col. 12, lines 1-10; note that TSF is equal to the sum of $TSF_{local} + T_{offset}$);

a comparator (MAC administrator, element 302, Fig. 6) for comparing the time of the timing synchronization timer (comparing TSF) with a predetermined target beacon transmission time (with TBTT, col. 12, lines 1-10), and generating a control signal of the target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6) if the comparison is equivalent (TBTT is when TSF some multiple of a beacon period, col. 12, lines 1-10); and

an adder (TxHw, element 316, Fig. 6) for setting the next target beacon transmission time (setting the $TSF_{beacon\ out}$, Fig. 5) by adding a beacon interval (adding $T_{offset\ out}$) to the predetermined target beacon transmission time (to the TSF/TBTT; note that TSF is the sum of $TSF_{local} + T_{offset}$, col. 12, lines 13-25 and Fig. 6) when the control signal of the target beacon transmission time is generated (when the beacon is generated, Fig. 6).

Regarding claim 13, Myles discloses a method for generating a control signal of a target beacon transmission time, comprising the steps of:

setting a predetermined target beacon transmission time (setting TBTT, col. 12, lines 1-10 and Fig. 6);

reading the time of a timing synchronization timer (reading timing synchronization function TSF, col. 12, lines 1-10; note that TSF is equal to the sum of $TSF_{local} + T_{offset}$);

comparing the time of the timing synchronization timer (comparing TSF) with the predetermined target beacon transmission time (with TBTT, col. 12, lines 1-10 and Fig. 6); and

generating a control signal of the target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6) if the comparison is equivalent (TBTT is when TSF some multiple of a beacon period, col. 12, lines 1-10).

Regarding claim 14, Myles discloses the method for generating a control signal of a target beacon transmission time of Claim 13, further comprising the step of:

setting the next target beacon transmission time (setting the $TSF_{beacon\ out}$, Fig. 5) by adding a beacon interval (adding $T_{offset\ out}$) to the predetermined target beacon transmission time (to the TSF/TBTT; note that TSF is the sum of $TSF_{local} + T_{offset}$, col. 12, lines 13-25 and Fig. 6) when the control signal of the target beacon transmission time is generated (when the beacon is generated, Fig. 6).

Allowable Subject Matter

2. Claims 4-6, 8-12, 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 4, the apparatus for generating a control signal of a target beacon transmission time of Claim 3, further comprising:

a register for storing the value of a beacon interval; and

a multiplexer electrically connected to the adder, including:

a first input port for receiving the predetermined target beacon transmission time;

a second input port electrically connected to the register; and

an output port electrically connected to the first input port of the adder.

In claim 5, the apparatus for generating a control signal of a target beacon transmission time of Claim 1, further comprising a loss detector electrically connected to an output port of the comparator.

In claim 8, the apparatus for generating a control signal of a target beacon transmission time of Claim 7, wherein the comparator comprises:

a first input port electrically connected to the timing synchronization timer;

a second input port electrically connected to the adder for receiving the predetermined target beacon transmission timer; and

an output port for outputting the control signal of the target beacon transmission timer.

In claim 11, the apparatus for generating a control signal of a target beacon transmission time of Claim 7, further comprising a loss detector electrically connected to the output port of the comparator.

In claim 15, the method for generating a control signal of a target beacon transmission time of Claim 13, further comprising the step of:

resetting the predetermined target beacon transmission time if the control signal of the target beacon transmission time is not generated after a predetermined time.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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